CHAPTER 4

Monitoring WAAS Using XML API

This chapter describes how to use the WAAS API to monitor your WAAS devices and how to use soapUI with the WAAS API interface.

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Information About the XML-Based API

The WAAS Central Manager Web Service provides an XML-based API that supports monitoring device status and information, alarms, and statistics. It does not support device configuration.

For more information about the XML API, see the *Cisco Wide Area Application Services API Reference*.

The following services are offered:

- AppNav Statistics Service (AppNavStats)
- CIFS Statistics Service (CIFSStats)
- Device Configuration Service (DeviceConf)
- Events Service (AlarmStatus)
- HTTP and HTTPS Statistics Service (HttpStats and HttpsStats)
- ICA Statistics Service (ICAStats)
- MAPI Statistics Service (MapiStats)
- NFS Statistics Service (NfsStats)
- SMB Statistics Service (SmbStats)
- SSL Statistics Service (SSLStats)
- Status Service (DeviceStatus)
- Traffic Acceleration Service (TrafficStats)
- Video Streaming Statistics Service (VideoStats)

To obtain the WSDL file defined for a particular service in the WAAS Central Manager monitoring API implementation, you submit a URL to the service with a ?wsdl suffix as follows:

https://<host/ip>:8443/ws/*service_name*?wsdl

To query a service for information, you send an XML-formatted SOAP request to the service at the following URL:

https://<host/ip>:8443/ws/*service_name*

Using the Traffic Acceleration Service

You can retrieve traffic and application statistics for individual WAEs, device groups, and for the WAAS network using the Traffic Acceleration service (TrafficStats Web Service), which performs actions that include the following:

- getAllClassMap—Retrieves all of the monitored class map names.
- getMonitoredApplications—Retrieves a list of all types of applications known in the scope of the system.
- retrieveAppTrafficStats—Retrieves overall traffic statistics collected on either a WAAS device, WAEs within a device group, or all system-wide WAEs. The traffic is further filtered based on the specified application names
- retrieveAverageThroughPutClassStats—Retrieves average throughput counts for a set of class map names.
- retrieveAverageThroughPutStats—Retrieves the average throughput values collected on a device.
- retrieveClassTrafficStats—Retrieves traffic byte counts for the specified class map names.
- retrieveConnection—Retrieves overall connection details for the current time.
- retrieveConnectionTrendClassStats—Retrieves overall connection trend details of applications collected on a device.
- retrieveConnectionTrendStats—Retrieves connection counts for the specified set of class map names.
- retrieveCPUUtilization—Retrieves the CPU utilization information for a specified WAE.
- retrievePeakThroughPutClassStats—Retrieves peak throughput values for the specified set of class map names.
- retrievePeakThroughPutStats—Retrieves the peak throughput values collected on a device.
- retrieveTrafficStats—Retrieves the overall statistics collected on either a WAAS device, WAEs within a device group, or all system-wide WAEs.

Using the Events and Status Service

You can retrieve alarm information, device status, and disk status using the Events and Status service (AlarmStatus Web Service), which performs one or more of the following actions:

- getDeviceStatus—Retrieves the device status.
- getDiskEncryptStatus—Retrieves the disk encryption status.
- getDiskInformation—Retrieves information about the disk.

- getDiskStatus—Retrieves the physical disk status.
- getMonitoredAOsByWaeIDs—Retrieves the operational status of application accelerators for a list of device IDs.
- getMonitoredAOs—Retrieves the operational status of application accelerators for either a WAAS device, WAEs within a device group, or all system-wide WAEs.
- retrieveAlarmByName—Retrieves a list of all alarms filtered by the name of the WAE or WAE group, the object type, or the alarm name.
- retrieveAlarmBySeverity—Retrieves a list of all active alarms for the specified WAE or WAE group, further filtered on alarm severity.
- retrieveAllAlarms—Retrieves all alarms.

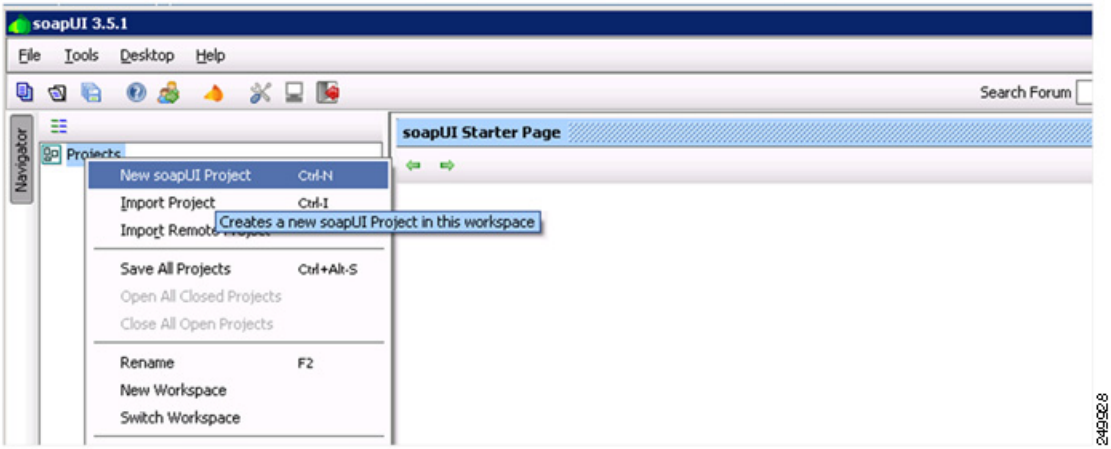
Using soapUI to Access the WAAS API Interface

You can access the WAAS API interface using third-party tools such as soapUI, WebInject, ApacheCXF, and so forth. The soapUI website (http://www.soapui.org/) offers a free software version that you can download and install on a client PC. The procedure in this section describes how to create a project using soapUI after you install and start the software.

Procedure

Step 1 Right-click **Projects** and click **New soapUI Project** to create a project (for example, WAAS-Project). See Figure 4-1.

Figure 4-1 soapUI: Create New Project



The New soapUI Project dialog box appears.

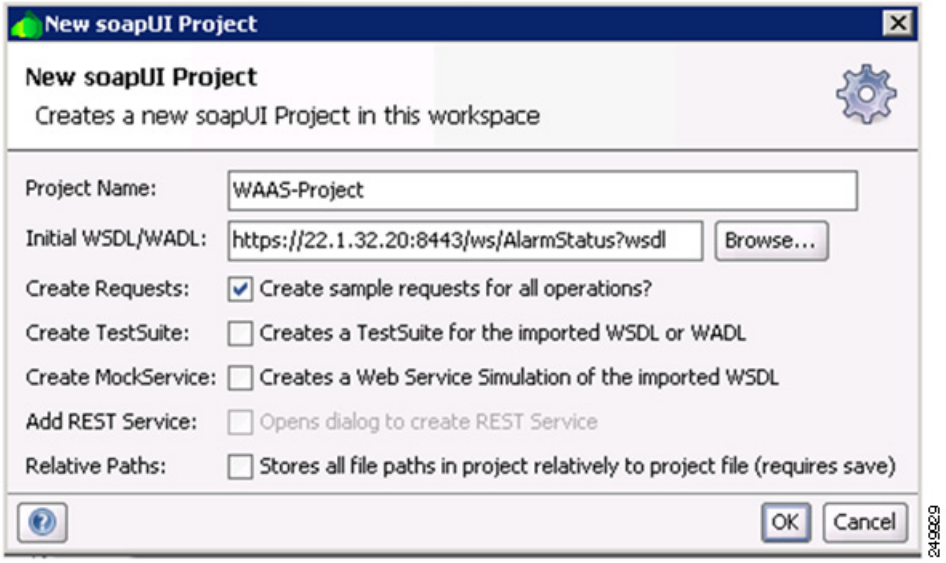
Step 2 From the New soapUI Project dialog box (see Figure 4-2), do the following:

a. Enter the WSDL URL.

b. Check the **Create Requests** check box.

c. Click **Ok**. A progress window appears while the data is gathered, which may take several seconds to load.

Figure 4-2 soapUI: New Project Dialog Box

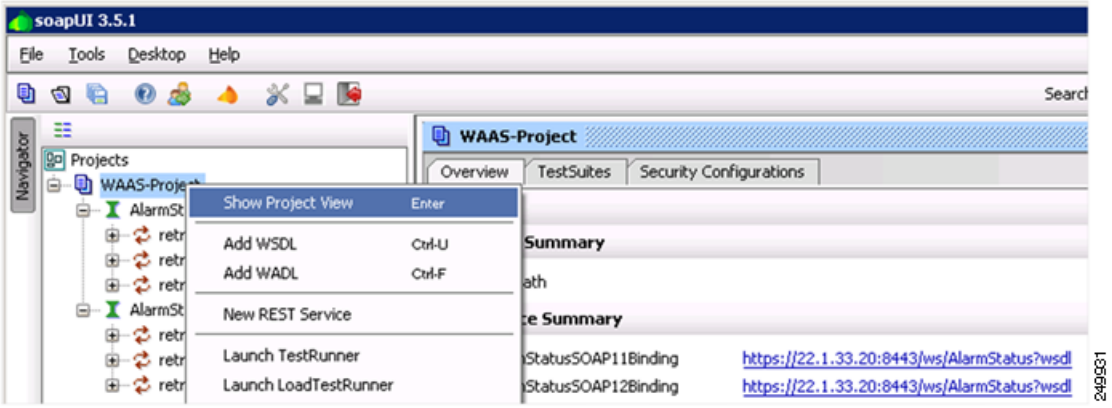


After the WSDL loads, the available navigation options appear.

Step 3 Specify security credentials by doing the following:

a. Right-click the new project (such as WAAS-Project) and click **Show Project View**. See Figure 4-3.

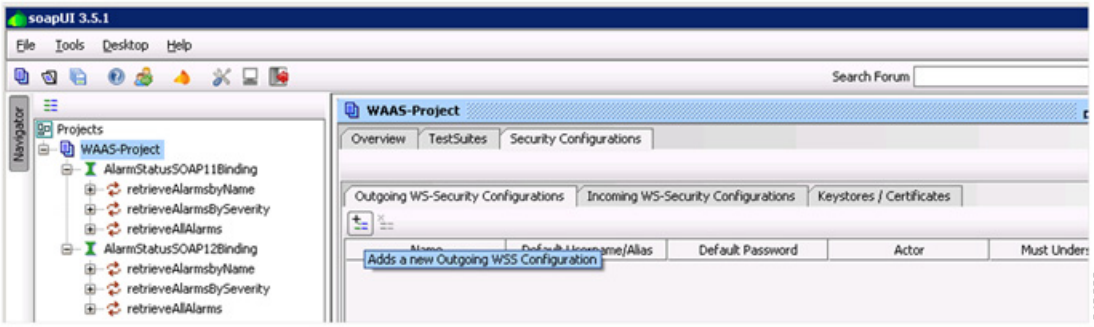
Figure 4-3 soapUI: Show Project View



The WAAS-Project pane appears.

b. From the WAAS-Project pane, add a new WSS by clicking the **Security Configurations** tab and click the plus sign (+) below the Outgoing WS-Security Configurations tab. See Figure 4-4)

Figure 4-4 soapUI: Add New WSS



The New Outgoing WSS Configuration dialog box appears.

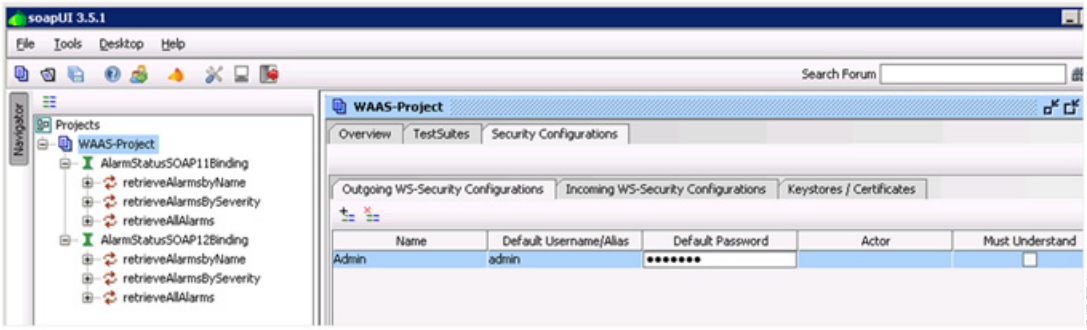
c. From the New Outgoing WSS Configuration dialog box, enter a name for the new WSS (such as Admin) and click **OK**. See Figure 4-5.

Figure 4-5 soapUI: New Outgoing WSS Configuration Dialog Box

The dialog box closes and the Outgoing WS-Security Configuration tab displays the new WSS.

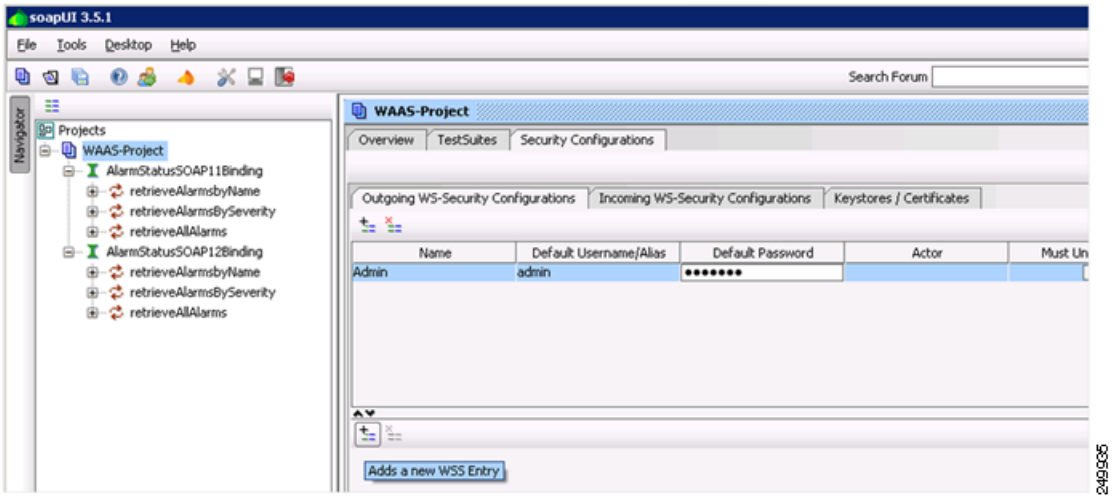
d. From the Outgoing WS-Security Configuration tab, enter the device username and password. See Figure 4-6.

Figure 4-6 soapUI: WSS Username and Password



e. Click the plus sign (+) in the lower pane to add a new WSS Entry. See Figure 4-7.

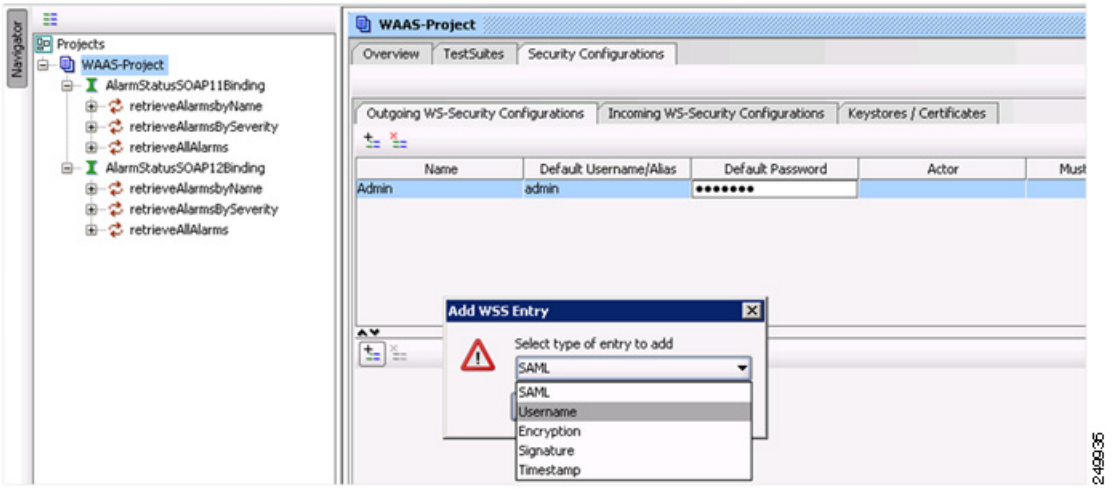
Figure 4-7 soapUI: Add WSS Entry



The Add WSS Entry dialog box appears.

f. From the Select Type of Entry to Add drop-down list, choose **Username**. See Figure 4-8.

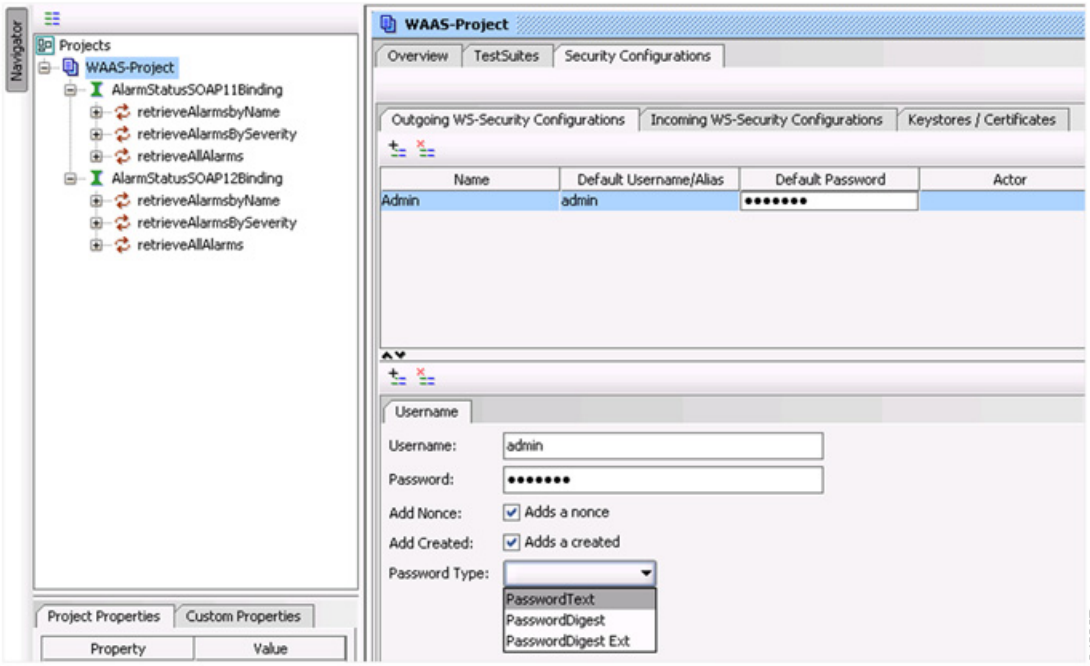
Figure 4-8 soapUI: Add WSS Entry



The dialog box closes and the lower pane of the Outgoing WS-Security Configuration tab displays the Username tab with your username and password already populated.

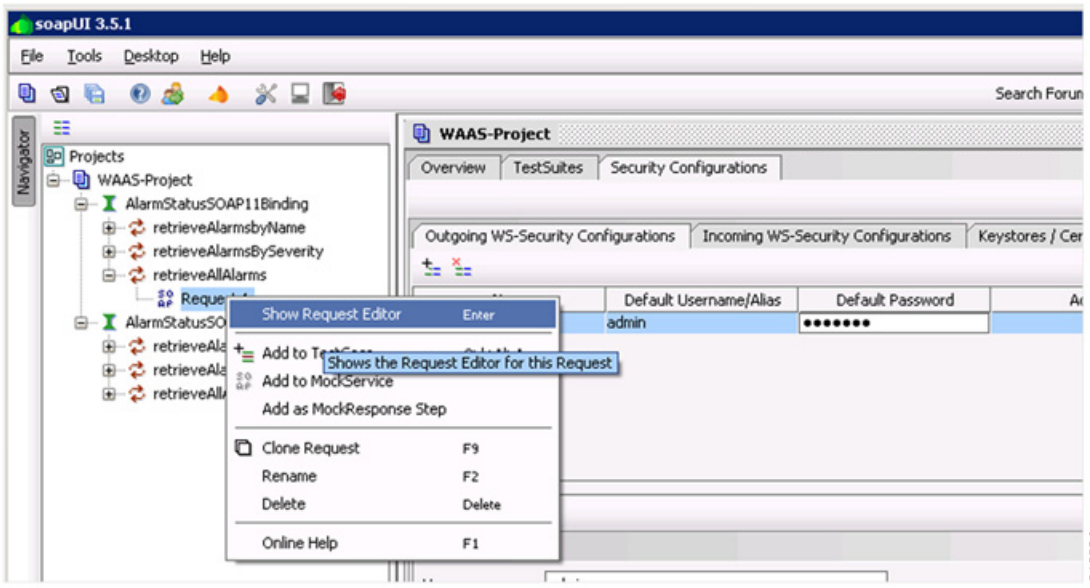
g. From the Username tab's Password Type drop-down list, choose **PasswordText**. See Figure 4-9.

Figure 4-9 soapUI: Password Type



Step 4 From the Projects tree on the left, click **+** to expand one of the listed items, double-click **Request x** to display the drop-down list, and choose **Show Request Editor** from the menu. See Figure 4-10.

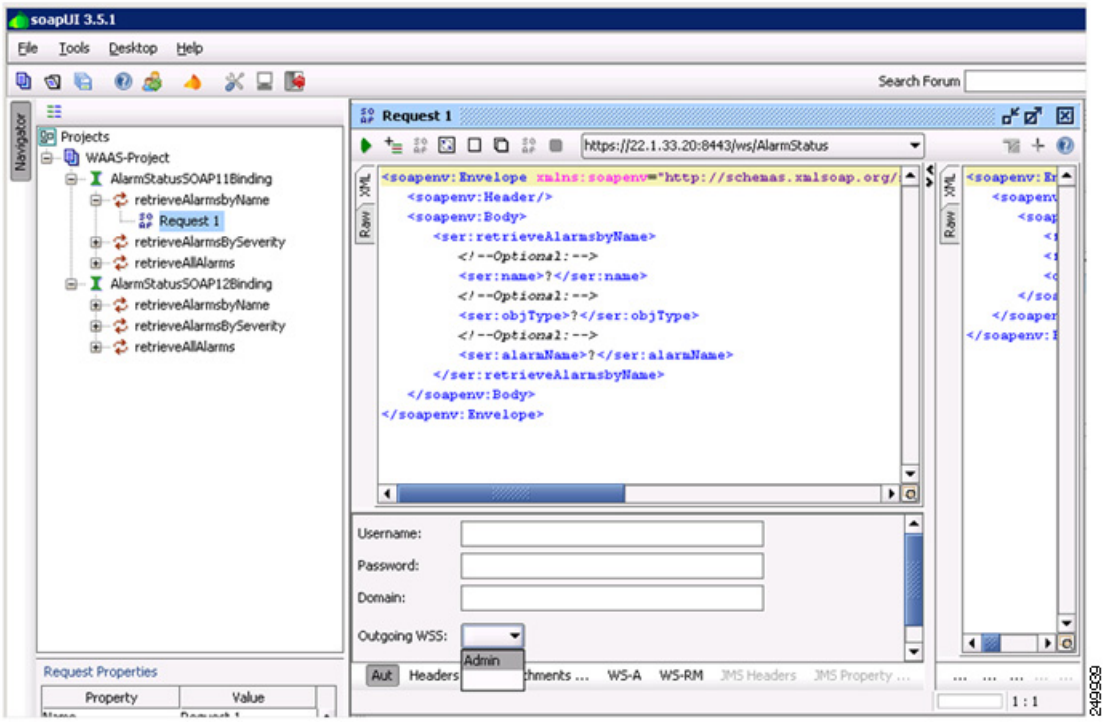
Figure 4-10 soapUI: Show Request Editor



The Request Editor pane appears.

Step 5 From the Request Editor pane, click **Aut** at the bottom and choose **Admin** from the Outgoing WSS drop-down list. See Figure 4-11.

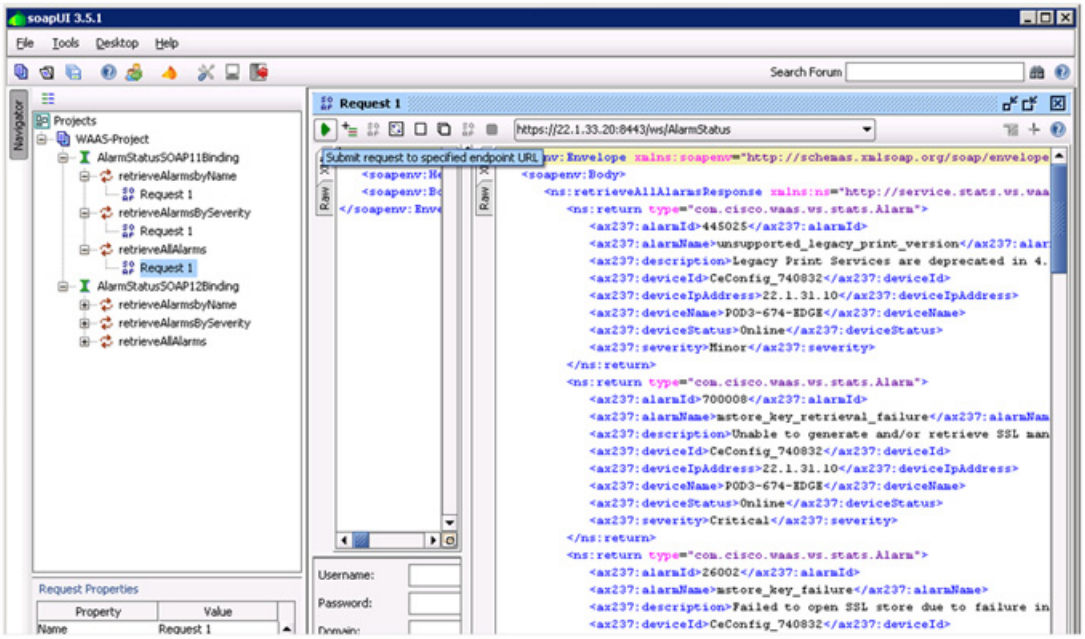
Figure 4-11 soapUI: Request Editor



Step 6 Verify the WSDL URL and click **Submit** to query the device.

After the request is complete, the data in XML format appears. See Figure 4-12.

Figure 4-12 soapUI: Data in XML Format



Step 7 (Optional) To add more WSDL, right-click the project to display the drop-down list and choose **Add WSDL** from the menu. See Figure 4-13.

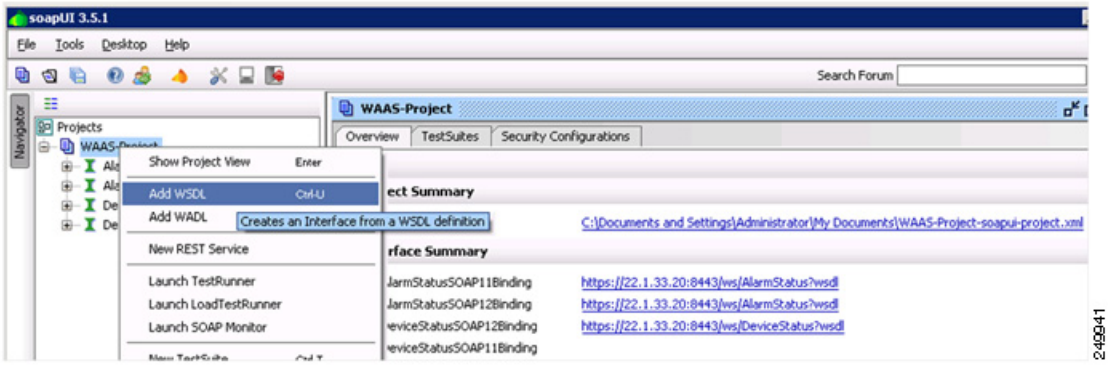



Figure 4-13 soapUI: Add WSDL